

## **SPECIFICATION**

To all Whom It May Concern:

Be it known that I, George M. Przygoda, a citizen of the United States, residing in the City of Pickneyville, County of Perry, and State of Illinois, and having a residential address at 5873 White Walnut, Pickneyville, Illinois 62274 have invented new and useful improvements in

## **BOTTLE DISPLAY SAFE**

## **CROSS REFERENCE TO RELATED APPLICATION**

This non-provisional patent application claims priority to the provisional patent application having Ser. No. 60/440,398, which was filed on January 17, 2003.

## **BACKGROUND OF THE INVENTION**

This invention relates generally to a display rack, and more specifically pertains to a uniquely designed rack that is collapsible, and can be dismantled after usage, but readily assembled and set up, for display of bottles, or other collector items, on behalf of its owner and user.

Numerous types of racks have long been available for general display of merchandise, and equipment, and other items, as for sale, general merchandising purposes, or simply to provide support for display of particular items. These racks are fabricated from wood, metal, and any of the various structural components that can be used for providing support for other items, during display or usage. For example, a book rack has a series of shelves, depending upon the height of the shelf needed, and normally incorporates a pair of side walls, with shelving spanning horizontally intermediately thereof, when assembled through fasteners, into a strong structural support. In such instances, the shelving is normally held in place by means of fasteners, such as screws, support angles, or shelving support that may be drilled and set into the side walls for the shelving, to provide support for the plurality of horizontal shelves provided therebetween.

In this particular instance, for the invention provided herein, it is designed to provide a uniquely designed shelf for holding, not only for support, to add to their safety, but also to add to their security, shelving for use for holding antique bottles and jars in position, as during display, as at a home convention, or when made available for sale, as at a craft fair, or the like.

Numerous types of racks have been made available for holding jars in position, as can be understood.

For example, the patent to Dilts, Pat. No. 182,359 shows a fruit jar rack. This is a type of device that was used in the canning industry, where people would put up jars of fruit, and then press them into closure, in order to sustain them during storage. As noted, each one of the jars shown in this patent are

mounted upon a rack bottom, that has a top section thereabove, frames at each side, and each of the end frames have apertures therethrough, and apparently through which the top and bottom insert, during assembly of the shown rack. Then, a screw means can be secured down through the top rack, onto the caps of each jar as arranged upon the bottom shelf of the rack, apparently to hold them into closure, and to allow for the convenient handling and carrying of the variety of jars, as assembled and racked, as during conveyance.

The patent to Henkel, No. 426,811 shows another type of combined bottle receptacle and stopper. Apparently this device was designed to provide and to be adapted for use for transportation of bottles, during usage. It appears that there are two embodiments for this receptacle, one is the rectangular type, and the other appears to be a triangulated form. As noted, the receptacle includes a series of rows, with each bottle having a stem provided thereon, and which acts as a stopper within the top of each bottle. Then, the top of each stem extends into an opening provided into the top of the receptacle, with each stem being spring biased downwardly, apparently for providing a stopper for entrance and closure into each bottle, when installed.

The patent to Kinsella, No. 1,203,202, shows another bottle holder. This device includes a base, a cover, and side members. The bottles are held into position by the shown closure plugs or its securing devices, but the bottles can be freed therefrom, and pivoted in place, as noted. This is apparently some type of a holder for liquor bottles that can be pivoted during dispensing and usage.

The patent to Jaklich, No. 1,293,788, shows a table caster. This device simply includes a holder, incorporating a base plate, that holds the bottles in place, and then there are spring bias stoppers to hold the bottles in closure, as can be noted. The device also apparently includes some type of a bell mechanism, so that each time a bottle is opened, the bell rings, for reasons which are really not described therein.

The patent to Bickford, No. 1,698,489, shows a type of container, with a tray, and an upper cover, and apparently for use for holding a series of containers in place, and which appear to be more of a spice or grain rack, rather than a bottle holder per se.

The patent to Ferguson, No. 2,506,864, shows a rotatable container and supporting means therefore. This appears to be some type of a medicine cabinet, having its own containers pivotally mounted therein, as can be noted.

The patent to Carr, No. 2,710,694, discloses a combination holder and closure for containers. As can be seen, the bottles or ampoules apparently rest upon the shelf member, as noted, and even insert slightly therein, while the top of each ampoule or bottle may insert within a slight depression, in the under side of the top shelf, as can be noted, to hold them in position. Or, the shelves may include some type of sponge like material, as explained, to allow the bottle tops and bottoms to press fit into position, and to be held thereat.

The patent to Spoto, No. 3,744,665, is upon a combination vile and test tube rack. This type of device is apparently used in the lab, for holding bottles and test tubes in place. There are various types of holding mechanisms for holding the bottom of the bottles, or test tubes, and the stoppers at the top, in place, as can be noted.

These are examples of the prior art types of shelving, racks, or the like, for use in combination and for supporting a plurality of bottles, which relates to the subject matter of this current invention.

### **SUMMARY OF THE INVENTION**

This Invention relates generally to a bottle display rack, and one that can add to the security of the bottles being displayed, either for showing, or marketing, but yet be reasonably protected against damage or breakage, which is significantly desired because of the value of the antique bottles being displayed. As is well known in the art, there are beer bottle collectors, soda bottle

collectors, or collectors of any of variety of vintage bottles, in the field of hobby, crafts, and collectors.

The bottle display rack of this current invention is designed to show or display such bottles. Some of the bottles might be soda bottles, beer, milk, flask, bitters, crown top, hutch, or blob top bottles. The essence of the invention is to provide not only a unique display for the bottles, but to do so from a security standpoint, so as to prevent breakage, and pilfering, as can easily occur, when the bottles are simply rested unsupported upon a rack, when displayed to the hobbyist.

The concept of this invention is to provide a rack that includes a pair of side walls, and a series of horizontal shelves that extend through slots in each side wall, and can be adjusted to those heights that accommodate the height of any bottle being displayed between shelves, when assembled upon the inventive rack. The shelving is held in position by means of the use of pegs that can tightly be wedged and beveled fit into those integrally tabbed end of each shelf, that extend through and project out of the exterior of each of the side walls. In this manner, the shelving in the side walls are very tightly secured into position, and provides a very safe and adequate support for the bottles.

Each of the shelves, except for the bottom shelf, will have a series of apertures conveniently spaced apart therethrough. Through each shelf will locate a wooded dowel rod or pin, that will extend down some distance, as for example three or four inches (3" or 4"), below the underside of the upper shelf, so that when a bottle is arranged upon the shelf below, the dowel or pin can be raised upwardly, to allow the bottle to be slid into position, and then the pin can be pressure fitted downwardly, to snugly engage within the shelf, depend downwardly therefrom, and insert into the open upper neck of the bottle, and in that manner, provides a very secure retention of the bottle in place, to prevent its unauthorized removal, or falling or breakage.

As can be noted, the device may include a series of such shelves, made of a series of horizontally arranged boards, that fit snugly and are pegged to the side boards or side walls, at various levels, and since a series of slots are provided through each side wall, along the height of the wall, the space in between shelves can be varied, depending upon the height of the bottles being displayed. And then, as previously explained, to lock the shelves into the side wall or brace, so that the shelves or their extending tabs are arranged through the slots, peg dowels, preferably of a slight taper, insert within apertures within the integral tabs, and bias against the outer surface of each side wall, in order to hold the shelves very structurally and stably in place, when assembled. Then, when the bottles are located upon a shelf, additional dowels are slid down through the holes in the shelf above, and extend down into each bottle, to thereby keep the bottle from falling off, or its unauthorized removal, but at the same time, allows any interested antique bottle collector to look at and rotate the bottle in order to see and determine its value.

Hence, after a showing, the bottles can be removed, by raising the pegs, the side wall pegs can be removed, and the entire shelf or rack can be dismantled, in a very compact manner, to allow for its carrying, conveyance, or transfer, to another location, or to the car for travel, or for storage.

Thus, upon review of this summary, it can be seen that models, especially what may be considered antique bottles, can now be displayed at various shows, stored at home, and can be done so in a very protective and safe manner. Thus, the benefits to be received from using the concept of this bottle display safe, can be categorized as follows:

1. Provides custom shelves built for the needs of the bottle owner;
2. The display can hold a variety of bottles and various amounts and quantities of bottles;
3. The shelves of the device are very portable, and can be assembled in a view of easy steps;

4. The shelves effectively save space that eliminates the need for bulky metal or other shelves, as normally used in such circumstances;
5. This display safe can be easily dismantled, folded up, and conveyed in one easy step;
6. Provides a shelving that allows for the display of the bottles, even at a show or fair, and can prevent their unauthorized removal or theft; and
7. The concept of this invention and the display safe, prevents bottles from damage, such as from inadvertently impacted, as by someone brushing against it, from pets, children, and even such drastic events such as earthquakes.

It is, therefore, the principle object of this invention to provide a bottle display rack that can conveniently, safely, and with facility display antique bottles for showing, sale, or for other purposes, as for example, simply to show them in the home, as a collectors item.

Another object of this invention is to provide a bottle display rack that can be easily assembled for usage.

Another object of this invention is to provide a bottle display rack that can be easily dismantled, after usage.

Still another object of this invention is to provide an emplacement means, in the form of dowels that can insert down through each shelf and into the open neck of a bottle, to lock in into position, and to prevent its unauthorized or accidental removal.

Another object of this invention is to provide a display rack, for showing of antique bottles or even for use in their conveyance, but which can be easily dismantled into a very compact condition to facilitate its transit or storage.

These and other objects may become more apparent to those skilled in the art upon review of the invention as described herein, and upon undertaking a study of the description of its preferred embodiment, in view of the drawings.

### **BRIEF DESCRIPTION OF THE DRAWINGS**

In referring to the drawings, FIG. 1 is a front view of the bottle display rack of this invention;

FIG. 2 is a side view thereof;

FIG. 3 is a plan view of one of the shelves, with pegs, for the bottle display rack;

FIG. 4 is a side view thereof;

FIG. 5 is a plan view of the bottom shelf for the bottle display rack;

FIG. 6 is a front edge view thereof;

FIG. 7 is a view of a side wall for the bottle display rack;

FIG. 8 is a front edge view thereof; and

FIG. 9 is a side view of one of the lower standards secured to the bottom of a side wall to support the erection of the rack during application.

### **DESCRIPTION OF THE PREFERRED EMBODIMENT**

In referring to the drawings, and in particular FIG. 1, in addition to FIG. 2, there is shown the bottle display rack of this invention. The rack, which may otherwise in addition to being identified as a bottle display safe, is free standing or wall fastened, or floor fastened, rack that will keep bottles safe from damage, such as from falling over during impact, when, encountered by children or other people, or pets, or from other human contact. In addition, the rack, when utilized, provides for the bottles being easily viewed as displayed. When vendors, such as antique bottle collectors, show their bottles, they generally are displayed separately on tables. As previously reviewed, this is dangerous, because if such bottles have any value, they can easily be knocked off, or removed, to the loss of the collector. In addition, since many of the craft fairs or flea markets are conducted outdoors, on windy days, it is also likely that bottles can be easily knocked over, and broken. Hence, the bottle display rack or safe, of this invention, prevents this from occurring.



In viewing these two figures, for the drawings, the rack 1, in this particular embodiment, includes a series of lateral shelves 2, and a pair of end or side walls 3, which support each of the shelves at their ends, and further includes a bottom shelf 4, as can be noted. In addition, the bottom of each end wall includes a brace or standard, that extends horizontally thereunder, as at 5, that is designed to provide for stable support of the entire rack, when erected, and when laden with displayed bottles, from tipping over, during usage.

As can also be noted in FIG. 2, each of the side walls 3 includes a series of slots, as at 6, therethrough, and each of the shelving 2, in addition to the bottom shelf 4, are cut and designed to provide for their extension therethrough, during erection of the rack. Then, each of the shelving 2 or 4 includes an outermost slot or aperture, as at 7, and through which a tapered peg 8 may be forcefully inserted and pressure fitted, so as to secure the shelving to the side walls, when the rack is erected.

Thus, as can be easily understood, the various shelving can be stacked one upon the other, and the end walls or side walls 3 likewise may be stacked upon the shelving, when the rack is dismantled, to provide for convenient conveyance and transit, as when not in use. On the other hand, as can be quickly understood, the entire shelf can be fully assembled, in place, at the site of usage, by simply erecting the side walls 3, inserting the ends of the shelves 2 and 4 therethrough, emplacement of the tapered pegs 8, to hold the shelf fully and stably erected.

The various components that make up the rack of this invention are disclosed in FIGS. 3 through 9. For example, the shelving 2 is readily disclosed in FIGS. 3 and 4. This shelving includes at a length of shelf that provides the width for the rack when erected. Each shelf has an extending and integral tab 9 at either end, as can be noted. These extending tabs 9 are of reduced width, and are snugly fitted through the apertures or slots 6 provided through the side walls 3, at each end of the formed rack. The extending tabs 9, of each of the shelves,

has the aperture or slot 10 provided therethrough, and it is through this aperture that each of the pegs 8 will insert, when tightly binding the shelving, to the side walls, during erecting of the shelf. Preferably, the pegs 8, since they are tapered, will be in close contiguous contact with their respective side wall 3, so that when the peg is tightened, and its taper increases, at its upper end, it will bind tightly through its respective aperture 10, and likewise, tightly fit against the outer side of each of the side walls 3, to provide very firmness in the holding of the shelves in the position within each erected rack.

As can also be noted in FIG. 5, in addition to FIG. 6, the lower shelf 4 likewise includes an extending integral tab 11, with each tab also having an aperture or slot 12 provided therethrough, as can be noted. Thus, one of the tapered pegs 8 will also hold the bottom shelf 4 in position, when its tab is extended through the lower most slot 6, of the side walls 3, and the peg 8 is inserted, and pressure fitted into position, as the rack is erected.

As can also be noted in FIGS. 3 and 4, there are a series of slots or apertures 13 provided through each of the upper shelves 2, forming the rack. Various pins, as at 14, are tightly fitted for a pressure fit through each of these apertures 13, and for reasons to be subsequently described. The arrangement of these pins, within the erected rack, can clearly be seen in FIG. 1.

Each of these pins 14, as inserted within its respective aperture 13 of the shelves 2, can be forcefully moved upwardly, until such time as a lower end of each pin is somewhat flush with the bottom of each shelf 2. Then, one of the bottles, to be displayed, may be located upon the shelf 2 therebelow, and the pin 14 can be pressure slid downwardly, so that its pegged structure will insert within the open top of the bottle arranged therebelow. In this manner, when the peg undertakes the position as shown in FIG. 1, each bottle will be locked into position, between its shelves 2, or between the lower shelf 2 and the bottom shelf 4, and the pins 14 hold the bottles into position, prevent their unauthorized removal, does not allow the wind to blow them free for breakage, but in addition,

each bottle may be rotated, since the pin 14 does not provide a tight fit within the open neck of each bottle, and that any collector can conveniently rotate the bottle to view its structure, determine its value, for potential purchase, or simply for viewing.

As can also be seen in FIG. 9, the lower braces or standards 15, there being two in number, are tightly secured to the bottom of each side wall 3. In this manner, the lower bracing 5, extends both forwardly and rearwardly of the side walls 3, and provides adequate support against tipping of the rack, when used.

As previously summarized, the bottle display safe or rack of this invention is designed to show or display bottles. Some of these bottles might be soda, beer, milk, flask, bitters, or crown top, hutch, or blob top bottles, as previously described. But, the open neck of each bottle is designed to accommodate one of the pins 14 therein, when erected for display upon the operating shelf. As can further be noted, the holes or apertures 13 through each shelf are staggered from the shelf above and the below. A shelf will have a first hole or aperture 13 closer to one side and the last hole further inwardly from the other side. The next shelf above or below will have the same amount of holes, but starting further from the same side, as the above mentioned shelf, and closer at the other side. The purpose of the staggering is to provide some balance to the rack, when erected. On the other hand, it is possible that the apertures 13, and their accommodated tapered pegs 8, could be aligned vertically, if desired. In each hole is placed a wooded dowel rod or pin, approximately three and a half inches ( $3\frac{1}{2}$ " ) long and perhaps three eighths to a half inch ( $\frac{3}{8}$ " to  $\frac{1}{2}$ " ), more or less, in diameter. These wooden dowel pins, as previously explained, go into the tops of the opened bottles, and extend down their necks, to capture the bottle into position, when displayed upon the erected rack. With each shelf set at a desired height, which can be adjusted depending upon the location of the slots 6, provided through the side walls 3, and which ones are used for accommodating a shelf, the bottles, when inserted, and held by their dowels, are safe from damage due to impact,

jarring, or should children attempt to remove a bottle, from pets or other disturbances, as can be understood.

Most collectors display bottles loosely on tables. This makes viewing difficult for customers, and sometimes damaging to the bottles. They can be knocked off, or picked up and removed, much to the chagrin of the collector. When shows are outside, as previously explained, wind can be a significant problem. The bottle display safe or rack of this invention solves all of these various predicaments and problems.

By sliding a dowel pin up through the hole in each shelf, each bottle may then be removed separately, or when a dowel is in position, each bottle can be turned for a three hundred sixty degree ( $360^\circ$ ) of viewing, as can be understood. The one half inch diameter ( $\frac{1}{2}$ " ), more or less, dowel pin fits easily into the top of each bottle, which is why the bottles do not fall off of the shelf, when impacted. The three and half inch ( $3\frac{1}{2}$ " ), more or less, long dowel pin is pushed down flush with the top of the shelf, so that the upper surface of the above shelf can accommodate bottles thereabove, if the shelf 2 is an intermediate shelf. The combination of both the length, and the diameter, of the dowel pin, make the dowel pins work to perfection in maintaining the bottles in a safe and stable display.

Assembly of the rack is done by sliding each pre-cut shelf into one side wall. It is the tab 9 or 11 of each shelf that inserts snugly through the slot 6 provided through each side wall. These tabs are cut-outs, integrally formed extending from each end of a shelf, and they are approximately 3 inches (3") wide, and one and a half inches ( $1\frac{1}{2}$ " ) long, in forming an integral tab. Obviously, other dimensions may work just as well. The shelf is approximately five inches (5") wide, so that the bottles can stand thereon, and safely. The two sides have three and one eighth inch ( $3\frac{1}{8}$ " ) slots, more or less, at desired shelf heights cut therethrough. Once this tab or tongue is slid through the slot in a side wall, the wedge, or tapered dowel, is placed in a one half inch ( $\frac{1}{2}$ " ) diameter hole in the

tab, to secure the shelf in place, as previously reviewed. By repeating this with each shelf, and each side wall, and by pressing the dowel wedge downwardly, the shelves are securely held within the side walls, and the bottle display rack is safely assembled. Also, when the rack is assembled, and the bottles racked thereto, the entire unit can also be used to convey the stacked bottles from one place to another. Disassembly is just the reverse, and as previously reviewed, the various components making up the shelves, and side walls, can be easily stacked, making storage and transporting easy, and making the components readily available for erection, when showing or displaying at various collector venues. Obviously, the invention as described herein, and its preferred embodiment, had been fabricated from wood components. On the other hand, it is just as likely that this rack and its various components could be molded from polymer, or any other materials, and function just as effectively. This is just an example of the type of variations that can be made to the structure of this development.

Variations or modifications to the subject matter of this invention may occur to those skilled in the art upon review of the disclosure as provided herein. Such variations, if within the spirit of this disclosure, are intended to be encompassed within the scope of the invention as described. The description of the preferred embodiment, and the depiction of the invention in the drawings, is set forth for illustrative purposes only.